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ABSTRACT

This report defines a curriculum laboratory to be a center where educational materials are developed, modified, and stored. Included in the document are a history of the curriculum laboratory, a study of its characteristics, and a survey of the curriculum laboratories in the colleges and universities of Pennsylvania. The Wilkes College curriculum laboratory is specifically discussed. (EMH)

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A SURVEY OF CURRICULUM LABORATORIES IN SELECTED COLLEGES IN PENNSYLVANIA

BY

Leota Nevil, B.S. in Ed.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ABSTRACT

The history of the curriculum laboratory is traced through studies by Bernice E. Leary, Francis L. Drag, John Gideon Church, Marian Lucia James, Eleanor Vivian Ellis, and others. From these sources were drawn characteristics including names given to the facility, personnel, collections and equipment, classification and cataloguing, circulation, functions, administration and organization, time open, and users. Regional trends in the characteristics were determined by a survey of curriculum laboratories in colleges and universities in Pennsylvania having an enrollment of 1,000 to 4,000, which offered four-year teacher education programs leading to a bachelor's degree. The history of the curriculum laboratory at Wilkes College is given as are recommendations for its continuance.

CHAPTER I

INTRODUCTION

A. STATEMENT OF THE PROBLEM

The purpose of this study is to present the history and characteristics of the curriculum laboratory from its beginning to the present. It will include a survey of trends in Pennsylvania colleges comparable to Wilkes College. This study should provide bases for improving the curriculum laboratory in Wilkes College.

B. DEFINITIONS

"Curriculum" is used to mean all of "the content or specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification or for entrance into a professional or vocational field." (Good, 1957, p. 149) "Curriculum Laboratory" has been defined as a repcsitory where curriculum materials are kept, and as a place where development and revision of teaching materials are made by educators through the assistance of trained personnel. (Anderson, 1965, pp. 411-412) In this study, the repository type facility will be called a curriculum library, whereas the facility where assistance is given in the use of holdings will be called a curriculum laboratory.

CHAPTER II

REVIEW OF THE LITERATURE

A. GENERAL HISTORY

The development of the curriculum laboratory can be divided into two parts: discovery (which includes invention) and refinement.

In the realm of discovery, the work of the curriculum laboratory was done as early as when man taught others how to make tools or weapons or how to use them. Whenever man taught others by pointing out a star or identified the names of plants or animals, he was performing the functions of the curriculum laboratory. Whenever he changed a technique which bettered his existence and taught others of this, such as, building a protective wall against the wind, which guttered his otherwise unprotected fire for warmth and cooking, or when he changed his way of life moving from the activities of the hunter to those of the farmer, and taught others of this change, he was bettering his way of life. By teaching others the improvements of his every-day customs of living, he was improving the disciplines of those he taught; therefore, his teaching activities could be equated with curriculum of today and any betterment was a curriculum revision, and by improving curriculum, he was doing work comparable to that performed in the curriculum laboratory.

Just as this was true in man's early emergence, it was heightened and accelerated when speech became refined and a form of written communication was added in whatever form it took - hieroglyphics, cunieform, Roman letters, etc., on durable material, such as stone, wood, leather, or paper.

The use of language as a curriculum revision was shown by Socrates, who added dialogue to straight informative teaching. Those under his instruction were, in a sense, confined within a discipline, or a curriculum.

So the method of dialogue by Socrates, as an enhancement of curriculum, was performing a function of the curriculum laboratory.

Socrates' method used abstract ideas, but concrete methods were used also, as shown in the arrangement of stones at Stonehenge to form a gigantic "tool" by which the sunrise at midsummer was recorded. This "tool" was used to show others a fact, and, therefore, provided a revision of curriculum by providing proof, and thereby it performed the function of the curriculum laboratory. (Hawkins, 1965, p. 50)

A tool which was used to present and disseminate information was movable type, used for the first time in the production of the Gutenberg Bible in 1456. (Collier's Encyclopedia, 1959, v.9, p. 444) This introduced the capability to print information in multiple lots, which reached many people directly and not only by word of mouth from one handwritten source. Thus by changing the method of instruction, movable print revised curriculum and by so doing performed a function of the curriculum laboratory.

Parallel with further discoveries and inventions came refinement in education, the realm in which the curriculum laboratory developed. There were three periods of refinement shown in the growth of the curriculum laboratory. The first, or early, period saw the establishment of new tools for specific use and the collection of old ones gathered in one place for use as they were as sources of information. The second, or middle, period of refinement added staff as a resource of human specialty to the curriculum laboratory. At the same time, the scope of the curriculum laboratory was expanding as these individual staff members became specialized in a given field. The third period of refinement, the latest, started when the need was seen for standardization to the extent that basic holdings, human resources, and functions should be general as well as adapted to the specific locale where situated. Another way of

stating the development of the curriculum laboratory is to say that it has grown in degree of specificity in the functions which it performs.

1. Early Period

Three periods of development of the curriculum laboratory can be identified.

The first, or early, period began before there was an established curriculum laboratory with collections of curriculum tools and the initiation of new ones.

Specialized holdings of both print and non-print materials were noted as early as 1578 in Ashton's Ordinance in Shrewsbury, England, which stated that school buildings should include for educational purposes "a library and gallerie for the said schools furnished with all manner of books, mappes, spheres, instruments of astronomye and all things apperteyninge to learning..." (Quoted in McGuinness, 1969, p. 154) Another example of holdings being centralized in one place was the establishment of the Educational Museum in St. Louis, Missouri, in 1904, which provided the public schools of that city with a form of audio-visual education. (Bristow, 1956, p. 188)

New tools were initiated in the form of textbooks. One such book was written by Benjamin Harris in Boston in the years between 1687 and 1690. (Otto and Floury, 1956, p. 115) Another pioneer text was published in 1782 by Noah Webster. It was popularly known as "the blue backed speller", but was actually entitled The American Spelling Book. (Harris and Liba, 1960, p. 1519)

The availability of textbooks to children was made easier when Massachusetts passed a law in 1884 providing free textbooks for children in public schools in that state. (Harris and Liba, 1960, p. 1522)

A companion to textbooks was introduced in 1920 when workbooks were first systematically developed as an aid to the use of textbooks. (Harris and Liba, 1960, pp. 1519-1520)

The introduction of instructional materials (or tools) into formalized curricula began as early as 1887 when a few institutions of higher education had developed a department concerned with the study of curriculum building. (Drag, 1947, p. 19)

Curriculum study and the establishment of curriculum laboratories continued to develop simultaneously, and by 1920 there were thirteen such facilities, ten of which were in institutions of higher learning, two were in city schools, and one was either "in a state or territorial department of education." (Drag, 1947, p. 19)

2. Middle Period

The second, or middle, period of refinement in the development of the curriculum laboratory saw its first establishment as a separate unit with more definitive functions. In this period it received its name. Its resources were expanded to include specialized personnel to serve in aiding users to utilize more fully the holdings in curriculum study and revision.

The first formal organization of a curriculum laboratory took place in 1922 with the establishment of the Textbook and Curriculum Service Library at Kalamazoo, Michigan. The next establishment of a special facility for curriculum study and revision was the Bureau of Elementary Research at Teachers College in 1924, headed by Dr. Herbert Bruner and Dr. Florence Stratemeyer. (James, 1964, p. 30)

Next began a series of studies concerning the curriculum laboratory, starting with a definition in 1932 by the man who initiated the term, Henry Harap. He said that a curriculum laboratory was "essentially a work-place in which raw materials were wrought into finished curricular products and in which data are collected, studied, and interpreted." (Harap, 1932, p. 634) The term "curriculum laboratory" was readily adopted, but was used for any area, department, or division which showed the tendency toward curriculum study and revision.

Up to this time, curriculum laboratories were utilized only in their immediate location and were, therefore, local in nature. There next appeared a curriculum laboratory which dealt with regional problems of curriculum study and revision. This was established at the George Peabody College for Teachers, Nashville, Tennessee, in 1932. Its establishment was made by the Division of Surveys and Field Studies for the purpose of meeting the needs of two state groups originally, Florida and Virginia. These two groups produced instructional materials on a state-wide basis. As a result of the participation of in-service teachers of both states, there grew an expanded program at the George Peabody College for Teachers. Work on problems having significance state-wide varied in duration from one to five summer quarters. Later, in addition to teachers from Florida and Virginia, educators came to the workshops from Arkansas, Mississippi, Alabama, Kansas, Tennessee, and Oklahoma. Individuals attending the workshops benefited directly. In addition, bulletins, handbooks, and study guides produced at the workshops were distributed to thousands of teachers in southern states, where study groups were conducted as a result of the pioneer work at the George Peabody College for Teachers Curriculum Laboratory. (Brewton, 1941, pp. 16-21)

An extensive study was made by Leary to determine the prevalence of curriculum laboratories and the scope of their activities in the United States. She set up criteria, to include two factors, to determine when a facility was a curriculum laboratory: special housing or work facilities and special resources for curriculum study. As a result of the inquiry, it was found that 107 curriculum laboratories existed in the United States by 1937, thirty-five of which were in universities. The person in charge of the curriculum laboratory was generally a professor of education, who taught courses in curriculum construction and acted as a consultant on curriculum problems. The activities of the facilities determined their contribution to the over-all program of curriculum improvement. The two activities performed most frequently were the collecting and assembling of curriculum materials and the production of curriculum materials. (Leary, 1938, B, pp. 350-354)

Using the study done by Leary as a base, Gwynn determined what the holdings should be in the new curriculum laboratory at the University of North Carolina in 1938. Cooperation between the curriculum laboratory director and the entire Education Department was used in the selection, retention, or discard of materials for the curriculum laboratory. (Gwynn, 1940, pp. 77-79)

Sister Mary Cleta Zembrodt made a study which was designed to use teachers' needs as the basis for the development of a curriculum laboratory at St. Louis University. She began with the premise that curriculum is a continuous process and has become increasingly more dependent on materials, other than textbooks, which need to be used by teachers in revising curricula to meet the needs of pupils. The place where this material is found is in the curriculum laboratory. In the course of her study, Sister Mary Cleta reviewed the history of the curriculum laboratory as

told by Leary. She gave as the reason for the establishment of the curriculum laboratory, the need to increase the scope of the program of curriculum revision to provide knowledge of educational aims, availability of materials, and a place where revision could be done.

The practicality of the curriculum laboratory was thought superior to "the vague generalities dished out in much of the professional literature of the past decade." (Zembrodt, 1944, p. 84)

The steady growth in the number of curriculum laboratories (as shown in the Curriculum Journal to be one per month from 1938-1940) indicated its value to curriculum development and revision. (Zembrodt, 1944)

3. Latest Period

The third, or latest, period of refinement of the development of the curriculum laboratory saw a general improvement brought about by in-depth study to meet the needs of curriculum development and revision. In this period, also, the curriculum laboratory gained national recognition by being made a necessary part of colleges offering teacher education.

a. Studies Made

A study was made by Drag for the California San Diego County Schools. It included a survey of curriculum laboratories in all of the then forty-eight states, the District of Columbia, Alaska, American Samoa, the Canal Zone, Hawaii, Puerto Rico, and the Virgin Islands. Information was collected from city and county school systems, institutions of higher education, and state and territorial departments of education.

In all kinds of educational systems there were found to be 353 curriculum laboratories (although perhaps not so named). Institutions of

higher learning had 145 of these. A steady growth was usual in the number of curriculum laboratories established each year. The greatest number started in any one year to this time was twenty-seven in 1944.

Most of the curriculum laboratories were housed in administrative offices, although some were in libraries or had special housing. The personnel in charge were chosen from areas of curriculum, instruction, and administration.

The three activities which were most engaged in were curriculum construction and revision, the collecting and assembling of curriculum materials, and the investigation of problems of curriculum. (Drag, 1947)

Concomitant with the growth in number of curriculum laboratories came improvements in certain aspects of the facilities.

Cooperation between curriculum laboratories and public schools was made and was found commendable. It was recommended, however, that better dissemination of new curriculum material be made through conferences and workshops. (Russell, 1966)

Improvement in the accessibility of curriculum materials for preservice teachers was recommended. This was proposed to be accomplished through better organization of curriculum material and service to users. The organization included cataloging of material in curriculum laboratories and centralizing areas containing curriculum material. Better service was recommended by having professional help available longer periods of time. (Arnett, 1965)

St. Cyr concluded that curriculum laboratories were used to only fifty per cent of their potentiality. Publicizing their existence was recommended, so that people other than student teachers knew of them. (St. Cyr, 1955)

The production of curriculum materials for curriculum revision and development was advocated to make the curriculum laboratory have a greater value to colleges of teacher education. (Flandro, 1957)

The collection of curricular material was suggested to be kept separate and under the direction of personnel having training in both education and library science. (MacVean, 1958)

Criteria for curriculum laboratories were set up under the direction of John Gideon Church. He used a series of questionnaires, the final set of which was used to determine necessary qualifications for curriculum laboratories in colleges offering teacher education. (Church, 1958)

Flexibility was thought to be more important to the curriculum laboratory than standardization; but within this flexibility there were essentials necessary to all curriculum laboratories. (James, 1964)

In order to retain its importance, the curriculum laboratory had to be considered a necessary part of teacher education. (James, 1964)

By 1969 curriculum laboratories existed in 303 teacher education institutions approved by the National Council for Accreditation of Teacher Education. (Ellis, 1969)

A conclusion was reached that although there was diversity in curriculum laboratories, there was a single objective - they existed as a service unit in teacher training.

b. Requirement for Accreditation

By 1960 the importance of curriculum laboratories was recognized by the National Council for Accreditation of Teacher Education in the inclusion of a facility with the functions of a curriculum laboratory as a requirement for accreditation of a college offering teacher education.

The Council stated:

> "A materials laboratory or center should be maintained either as a part of the library or as a separate unit. In any case, it should be open to students as a laboratory of materials of instruction and should be directed by a faculty member well informed in the various instructional media and materials at different grade levels. This laboratory should include a wide array of books commonly used in elementary and secondary schools; various types of audio-visual aids such as maps, charts, pictures, filmstrips, and recordings; various types of materials used in evaluating learning; and curricular patterns, courses of study, and teaching units that are available." (Quoted in Ellis, 1969, p. 9)

B. CHARACTERISTICS

The studies made concerning curriculum laboratories show effort to understand its characteristics with the intention of increasing its effectiveness. These characteristics include the name it is known by, the personnel who serve in it, what collections and equipment it contains, how the contents are classified and catalogued, whether or not materials are circulated, what its functions are, how it is organized and administered, the number of hours it is open, and who its users are. These are discussed in this section as they are found in the literature.

1. Names

The names which have been assigned to the facility called the curriculum laboratory have shown a change as the work of the curriculum laboratory has evolved from the broad concept of almost anything to do with instruction to the more specific performance of curriculum development and revision.

Examples of titles given to the curriculum laboratory when the concept was not only broad but vague are:

Curriculum Committee
Department of Education
Department of Instruction
Curriculum Department
Department of Study and Research
Division of Instruction
Curriculum Division
Curriculum Office

This list, to which must be added the term "Curriculum Laboratory" as the only specifically adapted term, comprised eighty per cent of the sixty-six titles used in 1947. (Drag, 1947, p. 15)

By 1969 the other names along with "Curriculum Laboratory" showed the tendency toward specificity of collections and purpose of the

facility, as shown by the following list:

Area Curriculum Center
Curriculum Library
Curriculum Center
Curriculum Materials Center
Curriculum Materials Area
Educational Materials Center
Education Library
Instructional Aid Center
Instructional Materials Laboratory
Learning Resource Center
Materials Center

The reasons for the use of some of the names in the later list were given as: the curriculum laboratory is a section of a media center, which is made so by the organization of specialized centers; and the term "curriculum laboratory" was too limiting in its scope. Names such as "Curriculum Study Center" and "Teaching Aids Center" were thought to be more realistic and meaningful, even though the term "curriculum laboratory" had become accepted as a standard term. (Ellis, 1969, pp. 62-63)

2. Personnel

Although there has been variety in the numbers and qualifications of the personnel serving in the curriculum laboratory, it has been shown that professional direction and guidance were preferred. (Church, 1970, p. 17) Over the years as technological advances were made, the need in the curriculum laboratory for personnel with special training to keep apace was made evident.

The person in charge is usually called the Curriculum Laboratory Director. He "should" devote most of his professional time to the curriculum laboratory; have had three years or more of teaching experience in elementary or secondary grades; have experience in curriculum revision and development; belong to professional organizations which

relate to his work in the curriculum laboratory; have at least one year of formal library training; have had classes concerning audio-visual materials and equipment - their selection, organization and use; have done graduate work in curriculum; and hold a doctorate either in education or philosophy. (Church, 1970, p. 17)

The well-staffed curriculum laboratory has, other than the director, a professional staff of at least one person who works a minimum of fifteen hours a week, who continues to further his own education. He should be ready to give consultative service to pre- and in-service teachers and the faculty of the teacher institution in which he serves. (Church, 1970, p. 17)

To give the staff personnel the recognition they deserve in the institution in which they serve, they should have faculty status and salaries commensurate with their training and experience equivalent to teaching faculty members. The consultant should be available at all times the curriculum laboratory is open. (Church, 1970, p. 17)

Although only two persons have been identified as the personnel needed in the curriculum laboratory, there are others which, if present, add the opportunity for more and better service.

There are two specialists whose knowledge is needed to keep apace with modern technology. They are the presentation specialist and the specialist in individual study. Both would have thorough knowledge of audio-visual materials and equipment, and be able to supervise personnel in centers producing audio-visual materials. The presentation specialist "would also know much about projection, lighting, acoustics, group dynamics, and sophisticated presentation techniques. He would be to the presentation what the producer is to the television show. He would work

with the teachers to make the most effective presentation possible. He would work with administrators on the design of new presentation areas and with curriculum groups on the design of new courses. He would know how to evaluate the outcomes of group instruction." (Wyman, 1969, p. 233)

The specialist in individual study would also "be an expert in working with individual students as they search for, select, and use reference books, supplementary texts, films, recordings, slides, newspapers, periodicals, and especially programmed materials. He would have particular competencies in choosing carrels and systems to go with them. He would be a sympathetic and patient helper to the student with a problem. He would do much of the evaluation of learning outcomes." (Wyman, 1969, pp. 233-234)

Personnel to do clerical work in curriculum laboratories are very necessary. Examples of some specific duties of clerk-typists include assisting with the mail, typing catalog cards, circulating materials, shelving and general typing. (Church, 1970, p. 14)

Student assistants help with clerical and other routine tasks. (MacVean, 1957, p. 1082) They should be given special attention and "responsibilities with educational value. Their duties should be rotated. Instruction should be given them in the use of all types of equipment and materials. Their work in the materials center should follow a planned course of study, with credit given." (Taylor, 1969, p. 15)

3. Materials Holdings

The criterion for that material which belongs in a curriculum laboratory has been stated as "anything that can be used to aid learning..." (Dane as quoted in Ellis, 1969, p. 25) A basic reason for

the establishment of the curriculum laboratory was to have a collection of material resources which would aid the educator to develop and revise curriculum. The holdings or collections in the following discussion are divided into two main groups: print and non-print material.

a. Print Material

The print indicated is found on paper base, such as book, periodicals, and pamphlets. From the beginning of curriculum laboratories, print material has been essential.

Six studies were examined for types of holdings. All are representative of their time. The ones of Leary in 1938, Drag in 1947, James in 1963, Ellis in 1969, and Bhattarai in 1972 were nationwide and will be identified by the year in which the survey was made. Leary had usable responses from 107 curriculum laboratories, Drag from 353, James from 138, Ellis from 331, and Bhattarai from 120.

Church's study of 1957 is included because his criteria mentioning holdings represent the approval of over 80 people who helped him refine those criteria, and although they do not show what curriculum laboratories have, they show what he believed they should have. His contributions to this discussion are identified by his name to differentiate them from the nationwide surveys.

Courses of study were accumulated to the number of 50,000 by Teachers College by the 1938 survey, because the collection had been started years before the establishment of the curriculum laboratory at Teachers College. (Leary, 1938 A, p. 10) In the survey of 1947, courses of study were the second most frequently represented form of curriculum material, or found in 240 curriculum laboratories. (Drag, 1947, p. 32)

Church thought courses of study to be of sufficient importance to have three points concerning them in his Final Set of Criteria for the evaluating of curriculum laboratories. (Church, 1958, p. 119)

In 1963, lists of courses of study were included among the essential resources of the curriculum laboratory. (James, 1964, p. 164)

Professional books were second in the 1938 survey at which time the curriculum laboratory at the George Peabody College for Teachers had assembled 1,500. (Leary, 1938 A, p. 11) In the 1947 survey, professional books ranked first by being represented in 249 curriculum laboratories. (Drag, 1947, p. 33) The 1963 survey found professional books to be a desirable, but not an essential, resource. (James, 1964, p. 164) In the 1972 survey, professional books were reported in curriculum laboratories. (Bhattarai, 1972, p. 114) One of the reasons for establishing curriculum laboratories was to provide material for practical use in teaching. (See Zembrodt, page 8) Professional books, dealing with abstract pedagogy, were of less and less importance in the curriculum laboratory, although in some instances still found there.

Periodicals ranked third in the 1938 survey, at which time Northwestern University listed 62. (Leary, 1938, A, p. 11) In the 1947 survey, periodicals ranked third again, when they were represented in 238 curriculum laboratories. (Drag, 1947, p. 33) In Church's criteria, periodicals were included which concerned curriculum, world conditions, appealed to children, and were of sufficient variety to meet the needs of users. (Church, 1958, p. 120) Periodicals appeared on the list of material desirable but not essential in the 1963 survey. (James, 1964, p. 164)

There were 1,600 textbooks and workbooks reported in the curriculum laboratory at Northwestern University, Evanston, Illinois, and 1,300 in

the George Peabody College for Teachers, Nashville, Tennessee, in the 1938 survey. (Leary, 1938, A, p. 11) In the 1947 survey, there were textbooks found in 219 curriculum laboratories and workbooks in 200. (Drag, 1947, p. 33) In the 1963 survey, new textbooks and workbooks were reported to be essential; and old textbooks were thought to be desirable but not essential in curriculum laboratories. (James, 1964, p. 164) In the 1969 survey, there were reported textbooks in 303 curriculum laboratories and workbooks in 291. (Ellis, 1969, p. 55) Bhattarai reported textbooks in curriculum laboratories in 1972. (Bhattarai, 1972, p. 114)

Textbooks were so prominent in one facility that the name given to it was the Textbook and Curriculum Service Library. (See page 5)

In the Northwestern University, Evanston, Illinois, there was an accumulation of 200 bibliographies in the survey of 1937. (Leary, 1937, A, p. 11) In 1947, bibliographies were found in 185 curriculum laboratories. (Drag, 1947, p. 33) In the 1963 survey, specialized bibliographies listing films, filmstrips, and tapes were thought to be essential in the curriculum laboratory. An example was cited as the Educational Film Guide. (James, 1964, p. 164)

Guides for curriculum construction were reported in 1937. (Leary, 1937, A, p. 11) They appeared in 157 curriculum laboratories in the 1947 survey. (Drag, 1947, p. 33) Guides for curriculum construction became more specifically expressed in 1963 when they appeared as how-to-do-it yourself material, such as planning assembly programs, social activities, and constructing teaching aids. (This last example shows the difficulty which arose in later years to ignore audio-visual material even in discussions of print material.) (James, 1964, p. 164)

Surveys of courses of study were reported in 1937. (Leary, 1938, A, p. 11) They appeared in 166 curriculum laboratories in 1947. (Drag, 1947, p. 33)

Yearbooks appeared in curriculum laboratories in 1937. (Leary, 1938, A, p. 11) Yearbooks, including the professional kind, and student publications were mentioned in 1963 as being undesirable material for the curriculum laboratory. (James, 1964, p. 165)

Pamphlets on curriculum making were reported in 1937. (Leary, 1938, A, p. 12)

Textbooks publishers' catalogues and juvenile encyclopedias were thought to be essential in curriculum laboratories, while trade books for children and young people and teacher-made tests were thought desirable, but not essential, in the 1963 survey. (James, 1964, p. 164)

Other materials listed only in the 1963 survey which were thought to be essential were guides to free and inexpensive materials, samples of handbooks for parents, students, and teachers, and tools for selecting printed materials, such as List of Outstanding Curriculum Materials, Vertical File Service, and Textbooks in Print. (James, 1964, p. 164)

Only in the 1969 survey were free and inexpensive materials reported, at which time they appeared in 228 curriculum laboratories. (Ellis, 1969, p. 56)

b. Non-Print Materials

Non-print, or audio-visual, material is anything which is not regular size print on paper as found in books, periodicals, pamphlets, etc. It includes material dealing with both sight and sound. Concerning sight, audio-visual material may be in paper form as illustrative matter, such as maps, pictures, posters, charts, etc. It may be on film, where

the original is reduced in size. It may be a specimen, such as a grasshopper. It may be a reproduction in three dimensions, often enlarged, such as a model of a grasshopper. Concerning sound, audio-visual material is represented in recordings, broadcasting, and televising of music and the spoken word, such as concerts, lectures, plays, stories, etc.

Audio-visual materials were reported in the 1937 survey as display materials, such as maps, posters, and charts. (Leary, 1938, A, p. 11) In the 1947 survey, all audio-visual materials were included without identifying descriptions as "display materials", which appeared in 156 curriculum laboratories. (Drag, 1947, p. 33)

Pictures and filmstrips were considered necessary materials in the curriculum laboratory by Church and the results of the 1963 and 1969 surveys. (Church, 1958, p. 120; James, 1964, p. 164; Ellis, 1969, p. 55)

The criteria of Church and the conclusion of the 1963 survey stated that slides and models were necessary. (Church, 1958, p. 120; James, 1964, p. 164)

Church and the results of the 1969 survey agreed that maps, globes, charts, posters, motion picture films, records, and transcriptions were essential to the curriculum laboratory. (Church, 1958, p. 120; Ellis, 1969, p. 55)

Educational toys and games as well as realia were reported as desirable, but not essential, in the 1963 survey. (James, 1963, p. 164) In the 1969 survey, they were reported in 131 curriculum laboratories. (Ellis, 1969, pp. 55-56)

Church thought specimens important holdings. (Church, 1958, p. 120)

The 1963 survey shows that diagrams are desirable, but not essential. (James, 1964, p. 164)

Diagrams were reported in the 1969 survey, at which time they appeared in 138 curriculum laboratories. (Ellis, 1969, p. 55)

4. Equipment for Audio-Visual Material

Equipment for using audio-visual material was reported in the criteria set forth by Church in 1958; from information concerning audio-visual equipment in use or proposed within the year of the report in 1963 by Walker concerning New Chicago Teachers College-North; from the nationwide surveys in 1969 by Ellis and 1972 by Bhattarai. The equipment mentioned by Bhattarai were those most frequently mentioned in the responses, but do not have any numerical statements. Justification for the use of Walker's information is three-fold; it represents equipment used in 1963-1964, when the survey in 1963 by James did not give the equipment needed for the use of the audio-visual materials held; it concerns an institution of teacher education; and it gives an indication that curriculum laboratories need to cooperate with equally equipped areas within or near their own facilities. The reports from Church and Walker are identified by name, and the nationwide surveys by year - 1969 and 1972.

Equipment with which to use audio-visual materials made its first appearance, in the studies considered, by Church in his criteria, when he said that a 16 millimeter sound projector was a necessary item. (Church, 1958, p. 118) Walker said that 16 millimeter sound projectors were used. (Walker, 1969, p. 217) In the 1969 survey, projectors were reported in 120 curriculum laboratories. (Ellis, 1969, p. 56)

These other kinds of projectors were recommended by Church: a combination filmstrip and a 2" x 2" slide projector and an opaque projector. (Church, 1958, p. 118) Projectors for 2" x 2" and 3½" x 4"

slides were reported used by Walker, as well as a television projector and a micro-projector. (Walker, 1969, pp. 217-219) In the 1969 survey, filmstrip viewers were used in 134 curriculum laboratories. (Ellis, 1969, p. 56) Slide projectors, overhead projectors, filmstrip projectors, and filmstrip viewers were reported in curriculum laboratories in 1972. (Bhattarai, 1972, p. 114)

Church said that curriculum laboratories should have screens or suitable projective surfaces. (Church, 1958, p. 118) Walker reported three kinds of screens: a plastic screen, and an 8' x 10' screen for rear projection, and a television monitoring screen. (Walker, 1969, pp. 217-219) Screens were reported in 109 curriculum laboratories in the 1969 survey. (Ellis, 1969, p. 56)

Photographic equipment was included in Church's criteria. (Church, 1958, p. 118) Concerning photographic equipment, Walker stated that a color camera, an orthicon camera, and photographic processing equipment were used. (Walker, 1969, pp. 218-219)

The difference in sophistication is outstanding in the following statements of visual equipment by Church and Walker. Church recommended stereoscopes as necessary equipment in curriculum laboratories. (Church, 1958, p. 118) Walker discussed the use of an IBM computer, both an open and a closed circuit television, and an equipped television studio. (Walker, 1969, pp. 218-219) In the 1972 survey, curriculum laboratories were reported having television studios. (Bhattarai, 1972, p. 114)

Church recommended that curriculum laboratories should have art supplies, industrial art tools, and lettering sets. (Church, 1958, p. 118) The 1969 survey reported lettering sets in 109 curriculum laboratories. (Ellis, 1969, p. 55) Walker stated that two well-supplied art studios were in use. (Walker, 1969, p. 218)

In Church's criteria, microfilm readers were recommended. (Church, 1958, p. 118) Walker said that microfilm viewers were used. (Walker, 1969, p. 219) In the 1969 survey, micro readers were reported in 43 curriculum laboratories. (Ellis, 1969, p. 56) In the 1972 survey, microfiche and microfilm readers were found in curriculum laboratories. (Bhattarai, 1972, p. 114)

Concerning sound equipment, Church recommended a table top radio, a transcription player, and a tape recorder. (Church, 1958, p. 118) Walker said that these types of sound equipment were used: a tape player; a disc player; an EDEX classroom console, used to record and play lectures with the ability to receive responses from forty students; a taping system (either individual or in the auditorium); monaural or stereo speakers; a public address system; and listening posts. (Walker, 1969, pp. 217-219) In the 1969 survey, listening posts were reported in 57 curriculum laboratories and turntables in 80. (Ellis, 1969, p. 56) In the 1972 survey, record players and tape recorders were found in curriculum laboratories. (Bhattarai, 1972, p. 114)

5. Classification and Cataloging

An important aspect of the organization of the curriculum laboratory is the cataloging procedure and the classification of materials, so that they can be found readily. (Church, 1970, p. 8) Whatever the systems of cataloging used, they should be kept simple, "requiring little time for processing the materials, easy to use, and flexible." (James, 1964, p. 206)

Simplicity as a suggestion was given in the nature of a plea, because some of the systems show a good measure of complexity.

The Dewey Decimal System was used in the curriculum laboratories at the Illinois State University at Normal, Loyola University at Los Angeles, and Eastern Michigan College at Ypsilanti. (Church, 1970, p. 8) In the 1957 survey, 22 curriculum laboratories of the 78 tabulated were reported using the Dewey Decimal System. (Flandro, 1957, p. 159) In the 1969 survey, 63 curriculum laboratories gave Dewey numbers to textbooks on the elementary and secondary levels. (Ellis, 1969, p. 59)

Sometimes a modification of the Dewey Decimal System was used. (Church, 1970, p. 9; Ellis, 1969, pp. 59-61)

The Library of Congress System was used in one curriculum laboratory in the 1957 survey (Flandro, 1957, p. 159), and it was used in ten curriculum laboratories in the 1969 survey. (Ellis, 1969, pp. 59-61) Other formalized methods used were the Educational Laboratory Scheme by twenty-two curriculum laboratories and the State System by twenty-eight curriculum laboratories reported in the 1969 survey. (Ellis, 1969, pp. 59-61) Two suggested formal systems were given in the Ellis manual found at the latter part of her publication including the 1969 survey. One was the R. R. Bowker Scheme, which was based on their Annual Textbooks in Print. (Ellis, 1969, M, pp. 3-12) The other was a system adapted from Courtland's Teaching Materials Center of the College of Education, Courtland, New York. (Ellis, 1969, M, pp. 13-14)

A National Laboratory System has been proposed which will catalogue all types of media for curriculum laboratories. (Bomar, 1973, p. 83)

A popular classification and cataloging was that by subject. In the 1957 survey, classification by subject headings was done in 54 of 78 curriculum laboratories. (Flandro, 1957, p. 159) In 1969, 144 curriculum laboratories used the subject heading system. (Ellis, 1969, pp. 59-61) The suggestion was made that the responsibility for the

cataloging of non-print material be assumed by the National Laboratory System. (Gallinger, 1974, p. 6)

When Dr. Marian Lucia James was the Curriculum Laboratory Director at the Florida Agricultural and Mechanical University at Tallahassee, she advocated shelving books by subject and grade. (Church, 1970, p. 9)

Regardless of the system of numbering used, many curriculum laboratories shelve their books by subject and publisher. (Church, 1970, p. 9) Although the staffs of the curriculum laboratories consulted in the 1963 survey did not all agree on the authority to use for subject headings, there was the tendency to use the Education Index. Another suggestion made at that time was the use of a list based on the terminology used by the teaching faculty of the college or university where the curriculum laboratory was located. (James, 1964, p. 208)

In the 1963 survey, the professional staffs agreed "that all material should be properly cataloged and that the catalog cards should be filed in a classified catalog. The classified catalog has the advantage of being used as a shelf list since its arrangement is by class number or notation rather than by alphabetical entry on the card." (James, 1964, p. 207) Arnett stated that shelf lists were used in some curriculum laboratories. (Arnett, 1965, p. 213)

Another kind of file which was used was the dictionary catalog "in which author, subject, and titles are interfiled." This was considered a good guide to the location of material in the collection. As good as the dictionary catalog was thought to be, there was an objection to it based on the length of time involved in preparing it. To overcome this objection, the suggestion was made to abridge the file to eliminate complete cataloging of each acquisition and make abbreviated cards for textbooks. (James, 1964, pp. 207-208)

Catalog files varied greatly from none to dictionary catalogs. "The remainder had various types--book catalogs, subject catalogs, author catalogs, title catalogs, publisher catalogs." (Arnett, 1965, p. 213)

Instructional materials in curriculum laboratories do not usually receive the same care in processing that is given to library materials. (Arnett, 1965, p. 212) In fact, in the 1965 survey, five curriculum laboratories did not catalog the material at all. (Flandro, 1965, p. 159)

6. Circulation

There is difference of opinion about the circulation of materials from the curriculum laboratory - some favor the activity and some do not.

In Arnett's study, it was found that one of four campus laboratory school laboratories "welcomed and encouraged borrowing by students in teacher education." (Arnett, 1965, p. 211)

When materials were circulated there was variance as to borrower, what material, and for what length of time. In the 1957 survey, material could circulate only at night and weekends so that it would be available in the curriculum laboratory during the day. (Flandro, 1957, pp. 160-161)

Arnett reported that "five laboratories allowed materials to circulate. Two had no circulation; one had laboratory-to-class-to-laboratory circulation... Detailed circulation periods necessitated posting prominently the circulation time for each type of instructional material." (Arnett, 1965, p. 210)

When asking about the possibility of off-campus circulation from the University of Michigan Curriculum Laboratory at Ann Arbor, St. Cyr found that 29 of 39 students interviewed were enthusiastic about the idea, pointing out that such a service would be excellent for first-year teachers. Sixty-six experienced teachers and administrators of 75

interviewed said that off-campus circulation throughout the state would be desirable and definitely useful. (St. Cyr, 1965, p. 62)

In the 1963 survey, it was thought that a curriculum laboratory should be of considerable size for materials to circulate. When circulation was allowed, it should be flexible and fair to all. Availability of materials at all times was a reason for non circulation, but this was countered with the statement: "Even if materials are restricted to laboratory use only, the practice of permitting teachers and students to check out materials for classroom use need not be discarded." (James, 1964, pp. 198-199)

Some guidelines for an effective circulation system were suggested to include the following: "a charging system must be established; records of loans must be maintained; and materials must be processed for loan. With the adequate staff recommended for curriculum laboratories, and with the use of student assistants, it is possible to establish a circulation system, provided there is sufficient material to circulate." (James, 1964, pp. 198-199)

Flexibility would be kept in mind when the possibility of a loan was being considered carefully for students and teachers. (Ellis, 1969, M, p. 55)

7. Functions

The activities, objectives, policies, and services are all interwoven with the functions which are discussed in this section. They are based on three premises: there are curriculum materials, there are personnel to make these holdings meaningful to users, and there is a place where the collection, people, and instruction come together to make curriculum development and revision possible.

One basic function of curriculum laboratories is to collect and assemble curriculum materials. (Leary, 1938, A, p. 16; Drag, 1947, p. 36) These materials are evaluated and cataloged. (Flandro, 1957, p. 35; James, 1964, p. 140) The curriculum laboratory is a place where textbooks, reference works, curriculum guides, and other teaching aids can be examined; and provides access to such professional books as may be of value in consultation in curriculum research and development. (Ellis, 1969, pp. 63-64) Provision is made for curriculum material to be used in other agencies through exchange. (Church, 1958, p. 123)

Some curriculum laboratories simply act as a place of collection of curriculum materials, whereas others offer consultative services and produce curriculum materials. (Anderson, 1965, p. 411)

The following statements concern functions carried on in curriculum laboratories which give instructional service.

Curriculum laboratory personnel assist "users in selecting and using materials" and "make an evaluation of user knowledge and skill in the use of the laboratory." (Church, 1958, p. 124)

Curriculum laboratories give teachers practical rather than merely a theoretical knowledge of the tools of learning. (MacVean, 1958, p. 1082)

Various types of materials are produced in curriculum laboratories. (Flandro, 1957, p. 35; James, 1964, p. 140) This includes such audio-visual material as transparencies, charts, posters, duplications of photographic illustrations, and sound tapes. Production of print material include: mimeograph lists of such material as textbooks, criteria for the evaluation of textbooks, and bibliographies for professional, on-going growth. (Ellis, 1969, pp. 63-64)

Curriculum laboratories act as a place where displays may be shown of students' projects and educational exhibits by commercial and professional agencies. (Ellis, 1969, p. 64) Cooperation is given for exhibits to be provided to other areas, and like cooperation allows exhibits and displays to have space in the curriculum laboratory from other areas of the teacher education institution. (Church, 1958, p. 124)

Facilities are provided for previewing and auditioning audio-visual materials. Also, participation takes place in curriculum laboratories to determine optimum technical usage of audio-visual equipment. (Ellis, 1969, pp. 64-65)

In many curriculum laboratories, a periodic inventory is made of materials and equipment. (Church, 1958, p. 124) This is followed by a weeding process, especially when new material replaces old, although some historically valuable material is kept. Weeding is thought to be valuable in more curriculum laboratories than practice it. (Arnett, 1965, p. 211)

In those curriculum laboratories which provide instruction, it may be for individuals on a person-to-person basis, or it may be in groups. It may be in the preparation of pre-service teachers or in continuing education for in-service teachers.

Concerning some curriculum laboratories, the statement of the kind of instruction is broad, such as, to "teach the elements of curriculum study and building," (Flandro, 1957, p. 34) or "to work with pre-service teachers to promote growth and development in teaching skills." (Church, 1958, p. 112) The instruction is further defined in other instances as assistance in the curriculum study of public schools for revision of curriculum; (Flandro, 1957, p. 34) "through field and consultation

services;" and "through action research." (James, 1964, p. 140) Studies were made of "student behavior, learning, and individual differences." (Flandro, 1957, p. 34)

Curriculum laboratories loan, sell, or otherwide distribute curriculum materials. (Leary, 1938, A, p. 16; Drag, 1947, p. 36) Curriculum laboratories also act as purchasing agents. (Drag, 1947, p. 36) If not acting directly as a purchasing agent, the curriculum laboratory may give information where instructional material may be obtained. (Ellis, 1969, p. 64)

Two functions which appeared early in the establishment of curriculum laboratories were the editing and reviewing of curriculum material. (Leary, 1938, A, p. 17; Drag, 1947, p. 36)

Provision is made in curriculum laboratories for aid to be given to those who wish to do their own curriculum study and revision. (Flandro, 1957, p. 35; James, 1964, p. 140)

In curriculum laboratories, studies are made of the resources, needs, and values of the community in which they are located. (Flandro, 1957, p. 34; James, 1964, p. 140) The curriculum laboratory acts as a clearinghouse for this information and makes it available for instructional purposes. (Church, 1958, p. 124)

In curriculum laboratories, there is intent "to evaluate and/or develop methods and techniques of instruction for various types of learning and learner involved, and for various subjects." (Flandro, 1957, p. 34) There is "encouragement to students and teachers to contribute to the evaluation file." (Gallinger, 1974, p. 4) Curriculum laboratories assist in experimentation with new curriculum material. (Anderson, 1965, p. 412)

In college instruction, curriculum laboratories "take advantage of existing opportunities and create new opportunities for faculty members to utilize instructional materials by means such as: demonstrations of effective use of new as well as older materials and equipment in college courses, informal faculty seminars, displays, and announcements of new acquisitions;" to "give assistance to faculty through creative development and use of instructional materials, equipment, and methods to the end of achieving the purpose of the instructor;" "conduct in-service educational activities and disseminate information to faculty regarding instructional media, new developments, techniques, and research findings" through participation in programs in teacher education. (Ellis, 1969, p. 64) Curriculum laboratories sponsor curriculum conferences and arrange for in-service courses. (Anderson, 1965, p. 412)

Curriculum laboratories further the concept "that curriculum includes all pupil activities over which the school exercises a directing influence;" and "to implement the principle that integration of information from different disciplines is basic to curriculum construction." (Church, 1958, p. 112)

Provision is made in curriculum laboratories "for study and research in the field of curriculum and instructional materials at the elementary and secondary levels" to seek for improvement in "the selection and use of instructional materials and technology." (Ellis, 1969, p. 64) By seeking for improvement, the curriculum laboratory makes aware "changes in elementary and high school curriculum in the materials and services of the teacher education institution." (Church, 1958, p. 117)

The curriculum laboratories in teacher education institutions "provide internship opportunities for graduates who are preparing to become materials specialists." (Ellis, 1969, p. 65)

Carrying the scope of help beyond the immediate range of the curriculum laboratory, provision is made for consultative service to be given throughout the state. (Ellis, 1969, p. 64)

Emphasizing practicality in aid received from the curriculum laboratory, "teachers should have access to research findings which are related to real problems which they have identified." (Russell, 1966, pp. 43-44)

8. Administration and Organization

The curriculum laboratory is usually administered by the department in which it is located.

In the 1937 survey, special housing was provided for 22 of the 35 curriculum laboratories in institutions of higher education. These were in Departments of Education under whose administration they were. (Leary, 1938 A, p. 13)

The entire number of responding curriculum laboratories was considered in the 1947 survey when it was reported that 60 laboratories had special housing; 187 were located in administrative offices; 36 were found in library rooms; and 25 were located in a combination of administrative offices and the library. (Drag, 1947, p. 26)

In the 1963 survey, 55 curriculum laboratories were administered as separate agencies within the School of Education; 46 were part of the library; 44 were comprehensive agencies with the instructional materials center or the audio-visual center; and 41 were units of the instructional materials center. (James, 1964, p. 129)

The locations were explained in this way: "Having the curriculum laboratory administered by the college or university library is an arrangement that can provide many benefits." With the trend toward designing college or university libraries with facilities for small conferences and seminars, it might be possible to have the curriculum laboratory housed adequately with a workshop atmosphere. (James, 1964, p. 188)

Concerning housing the curriculum laboratory in the Department of Education, James stated: "Organizing the curriculum laboratory as a separate agency within the school of education has as its greatest advantage the availability of the personnel to give leadership and continuance guidance to groups and individuals planning for or in curriculum study or revision." (James, 1964, p. 189)

Placing the curriculum laboratory in an agency which has in it an instructional materials center and an audio-visual materials center is in keeping with the trend to integrate print with non-print materials, but the difficulty with this arrangement is the tendency toward imbalance of emphasis in the direction of the non-print material. (James, 1964, p. 188)

In 1969, of the 303 responding institutions, 170 curriculum laboratories were administered by the Department of Education; 112 by the library; and 21 were administered jointly by the School of Education and the library. (Ellis, 1969, p. 47)

The trend continued from 1963 to 1969 to have the curriculum laboratory administered by the Education Department in more instances than by any other department within the colleges.

9. Numbers of Hours Open

There was agreement among those responding in the 1963 survey that the curriculum laboratory should be open all day. (James, 1964, p. 158)

It was recommended as early as 1947 that the curriculum laboratory be open all year to be available to pre-service and in-service teachers and anyone who wished to use it. This would be especially true in the summer for workshop programs. (Drag, 1947, p. 113) Church agreed with this, emphasizing the summer availability. (Church, 1958, p. 117)

Arnett found that those curriculum laboratories located in the library were open 62.97 to 97 hours per week, whereas those not found in libraries were open from 30 to 58 hours per week, or "an average of 30.5 hours fewer per week than the libraries." (Arnett, 1965, p. 134).

Patrons were able to have professional help longer periods of time when the facility was in the library, observing the same hours, with librarians in charge, than in curriculum laboratories which were located in the Department of Education. (Arnett, 1965, p. 132)

In the 1969 survey, it was reported that 42 curriculum laboratories were open for service one to thirty-nine hours per week; 90 curriculum laboratories were open 40 to 49 hours; 30 were open 50 to 59 hours; 99 stated they kept the same hours as the library, which ranged from 60 to over a 100 hours; ten of these did not express the actual number of hours. The most popular length of time for any one group was the 40 to 49 hours per week span. The least popular was the arrangement of self service; however, it was stated that this was good training in responsibility for a pre-service teacher. Two curriculum laboratories were open only on request. (Ellis, 1969, pp. 49-51)

10. Users

Use of the curriculum laboratory was based on knowledge of its existence, orientation to and actual assignments given in its use, and time to take advantage of its potentialities. (St. Cyr, 1955, pp. 41-52)

Arnett reported that student teachers and other students in 10 of 14 curriculum laboratories studied used it "much"; faculty made "medium" use in nine curriculum laboratories and "little" use in five; teachers in the community used one curriculum laboratory a "medium" amount of time, in seven gave it "little" use, and "never used", seven.

In explanation, Arnett said: "Only student teachers and interns used it much; teachers in the community and alumni used it little or never. Many who checked (in the questionnaire) little remarked that actually never was closer to the truth, but an occasional teacher or alumnus used it." (Arnett, 1965, p. 136)

The colleges and universities with 12,000 and more enrollment allowed use of the curriculum laboratory by a larger variety of clientele than those institutions with smaller enrollment. (James, 1964, pp. 150-154)

The opinion was expressed in the 1963 survey that all students and faculty members of the college should be allowed to use the curriculum laboratory. (James, 1964, p. 152)

CHAPTER III

SURVEY

The characteristics traced in the last chapter gave information of national trends in curriculum laboratories. These served as bases for a regional survey reported in this chapter and Chapter IV.

A. CRITERIA

Four criteria were used to select participating colleges for the collection of data on curriculum laboratories. These criteria were based on qualifications found in Wilkes College to keep comparison realistic.

The first, the college chosen offered teacher training in elementary education. (College Blue Book, v. 4, 1972, p. 462) There was one exception to this. One college was chosen which offered teacher training in secondary education but not elementary. The college met the other three criteria, however, and therefore was included. The second criterion, the college offered teacher training for four years leading to a bachelor's degree. The third, the college was located in Pennsylvania. The fourth criterion was based on an enrollment range of 1,000 to 4,000. (College Blue Book, v. 2, 1972, pp. 704-756)

Twenty-nine colleges were found which satisfied all four criteria.

B. INSTRUMENT

The instrument used to collect data was a questionnaire. (Appendix A) Several questionnaires from former studies were used as guides for the one used in this survey. These included the Final Set of Criteria by Church, (Church, 1958, pp. 109-126) later identified as Check Lists

1-6. (Church, 1970, pp. 7-27) Also used as guides were the Questionnaire-Checklist by James (James, 1964, p. 240, sub-pages, 1-14) and the Instructional Materials Questionnaire by Arnett. (Arnett, 1965, pp. 220-230)

This writer's instrument, Curriculum Laboratory Questionnaire, began with an item to determine whether or not the college approached had a curriculum laboratory. If the college did not, their response usually ended there. If there was such a facility, information was sought concerning the characteristics, including: personnel, number of hours open, holdings, services given, and productions made. The questionnaire was constructed to encourage additional remarks.

C. PROCEDURE

The Curriculum Laboratory Questionnaire was sent to the twenty-nine colleges and universities satisfying the criteria. Twenty-two responses were received.

Each item of the questionnaire was entered in a tabulation. The results are discussed in Chapter IV.

CHAPTER IV

DISCUSSION AND INTERPRETATION OF DATA

From the twenty-nine colleges and universities to whom the "Curriculum Laboratory Questionnaire" (Appendix A) had been sent, there were twenty-two responses. The following discussion presents the results and interpretations thought pertinent by this writer. Items from the questionnaire are presented in the order in which they appeared, with the discussion of each given immediately after. Where there are remarks from the responses, they are mostly verbatim.

Does your institution have a curriculum laboratory?

Seventeen colleges and universities of teacher training had curriculum laboratories. Five did not, but one of these which said it did not have a curriculum laboratory, showed by subsequent answers, that characteristics of collection and functions were the same as if the college had the facility. For those who said they did not have a curriculum laboratory, the questionnaire usually ended with that answer.

If the name is different from curriculum laboratory, what is it?

The name "Curriculum Laboratory" was used by four facilities, "Curriculum Library" was used in seven, while in one instance there was an alternate name, "Education Department Library." Other names used once each were "Curriculum Center", "Instructional Materials Center", and "Curriculum Materials Center".

If there is no curriculum laboratory, what area of the curriculum program performs the same function?

Two which reported not having a curriculum laboratory said that the library performed the functions of a curriculum laboratory.

What is the academic rank and/or title of the person in charge of the curriculum laboratory?

The status of the person directing the curriculum laboratory was in six instances assistant professor; in three, librarian; and once each the person was a professor of education, an associate professor, an assistant librarian, a temporary instructor, a paraprofessional. In one institution, no one was assigned as the director of the facility.

Titles given to the director of the curriculum laboratory were: Head Reader Services, Coordinator, Education Librarian, Curriculum Materials Librarian, and Curriculum Librarian.

How many hours a week is the curriculum laboratory open?

The hours the curriculum laboratory was open per week varied from 10 (with key available on the honor system) to 115, the same hours the library was open. (Table 1, pages 42-43)

State the number of hours per week worked in the curriculum laboratory by the following personnel (during the regular college year): a) Professional b) Subprofessional c) Clerk d) Student Assistants e) Other

The following gives the number of times personnel of differing ranks were represented and what the range of hours worked per week was:

professionals were represented in twelve curriculum laboratories, and they worked from 1-70 hours; subprofessionals were reported in four curriculum laboratories and worked from 2-37½ hours per week; clerical workers were represented in four curriculum laboratories and worked 8-35 hours. Student assistants were found in sixteen curriculum laboratories, and the total hours worked by them per week ranged from 5 to 180. Other personnel who worked in the curriculum laboratory were student teachers, 35 hours per week, interns and graduate assistants, whose hours varied. (Table 1, pages 42-43)

(Note on Tables)

In the tables, numbers were assigned to the respondents chronologically according to the order in which their responses were received. The number order is the same for all tables. This arrangement was used to show correlation between institutions and their responses.

Eighteen responses were tabulated although only seventeen represented curriculum laboratories. One institution not having a curriculum laboratory showed so many characteristics of a curriculum laboratory that it was included in the tabulation.

TABLE 1

NUMBER OF HOURS

AND NUMBER OF HOURS

(BOTH

QUESTIONNAIRE RESPONSE NUMBER	NUMBER OF HOURS	PROFESSIONAL	SUB-PROFESSIONAL
1	88	17½	
2	40-45	3	
3	10	1	
4	72	37	37
5	81	12	
6	10	3	2
7	82		
8	46		37½
9	30		
10	78	70	
11	45	25	
12	115	4	
13	82		
14	8-10		
15	77	24	
16	32	10	
17	50	35	37½
18	50		

CURRICULUM LABORATORY IS OPEN

WORKED BY PERSONNEL

PER WEEK)

CLERICAL	STUDENT ASSISTANTS	OTHERS
35	176	Student Teachers-35 hours
	40	
	10	
	71	
	20	
	5	
	16	
30	15	
41	180	Interns and Graduate Assistants-Time Varies
	45	
8	15	
	8-10	
	20	
	24	
	20	
	21	

What is the reasoning behind the choice of the number of people working in the curriculum laboratory?

Six responses stated that an optimum quality of service was the reason why the curriculum laboratory was open and staffed as it was. Five gave the need for money as their reason. Two stated that the number of hours given by the director was influenced by the fact that he or she had other assigned duties as well.

For how many years have you had this facility?

Curriculum laboratories had been maintained from one to fifteen years.

The curriculum laboratory operates under the direction of:
a) The Education Department b) The library c) A combination of the Education Department and the library d) Other

The following gives the number of curriculum laboratories operating under each of the categories: Department of Education - 7; Library - 8; combination of the Department of Education and the Library - 2; and the School of Professional Studies - 1. Two others were under the direction of the Department of Education but were housed in the Library.

The collections surveyed in the colleges and universities contained print and non-print material and equipment to use the audio-visual material. Eighteen colleges and universities, whose information could be tabulated, were included. (Because one college, which did not have a curriculum laboratory as such, had such a wide collection in its library, it was included in the survey.)

In marking the following representative materials and equipment, use: C for those found in the curriculum laboratory; L for those found in the library; E for those found elsewhere on campus; and O if not represented. (Use two letters, if appropriate)

Non Serial Printed Material. 1. Textbooks 2. Workbooks 3. Courses of study 4. Curriculum guides 5. Children's books 6. Adolescents' books 7. Teaching guides 8. Tests 9. Pamphlets 10. Other (Table 2, pages 46-47)

Textbooks, workbooks, courses of study, curriculum guides, teaching guides, tests, and pamphlets were found in fourteen to seventeen curriculum laboratories, or more than in any other place.

When present, children's and adolescents' books were found about equally in the curriculum laboratory and the library.

Other holdings in the category of non serial print material found in curriculum laboratories included reading center basals, vertical file, and tradebooks in the field of education. One library had government documents.

In one response was the statement: "Our collection of curriculum material is small. It consists mostly of materials contributed by publishers or by faculty in the Department of Education."

Periodicals. 1. Children's magazines 2. Professional periodicals 3. General periodicals 4. Other (Table 3, page 48)

Professional and general periodicals were located in far more libraries than curriculum laboratories. Children's magazines were about equally divided between the curriculum laboratories and the libraries, although they were not present in about one-half of the laboratories.

TABLE 2

LOCATION OF NON-SERIAL

QUESTIONNAIRE RESPONSE NUMBER	TEXTBOOKS	WORKBOOKS	COURSES OF STUDY	CURRICULUM GUIDES
1	C	C	C	C
2	C	C	C	C
3	C	C	C	C
4	C	C	C	C
5	C&E	C	C	C
6	C	C	C	C
7	L	L	L	L
8	C	C	C	C
9	C	C	C	C
10	C	C	C	C
11	C	C	C	C
12	C	C	C	C
13	C	C	L	L
14	C	C		C
15	C	C	C	C
16	C	C	C	C
17	C&L	C&L	C&L	C&L
18	C	C	C	C

Code of Locations
C=Curriculum Laboratory
E=Elsewhere on Campus
L=Library

PRINT MATERIAL

CHILDREN'S BOOKS	ADOLESCENTS' BOOKS	TEACHING GUIDES	TESTS	PAMPHLETS
C	C	C	C	C
C	C	C	C	C
C	C	C	C	C
C	C	C	C	C
L	L	C	C	C
C&L	C&L	C&L		C
L	L	E	E	
C	C	C&L	C	C
E	E	C	C	E
L	L	C	C	C
L	L	C	C	C
C		C	C	C
L	L	L	C	L
L		C		C
E	E	C	C	C
C		C	C	C
C&L	C&L	C&L	C&L	C&L
L	L	C	C	L

Note: A blank space denotes that either a response was not given or a zero was expressed.

TABLE 3

LOCATION OF PERIODICALS

QUESTIONNAIRE RESPONSE NUMBER	CHILDREN'S MAGAZINES	PROFESSIONAL PERIODICALS	GENERAL PERIODICALS
1	C	L	L
2		C&L	L
3		L	L
4	C	C	L
5	C	C&L	L
6	C	C&L	C&L
7	L	L	L
8	C	L	L
9	E	L	L
10	C	L	L
11	L	C	C
12		C&L	L
13		L	L
14		L	L
15		L	L
16		C&L	L
17	L	L	L
18	L	L	L

Code of Locations

C=Curriculum Laboratory
E=Elsewhere on Campus
L=Library

Note: A blank space denotes that either a response was not given or a zero was expressed.

The consensus concerning professional and general periodicals was that they belong in libraries rather than curriculum laboratories.

In general, print material was more abundant and varied in curriculum laboratories and libraries than non-print, or audio-visual material, showing to this writer that traditional material in print was more acceptable than newer, more innovative non-print material.

Along with periodicals was listed in one curriculum laboratory, the Curricular Advisory Service. Another reported receiving newsletters.

Macromaterial. 1. Maps 2. Charts 3. Posters 4. Diagrams 5. Other (Table 4, page 50)

Maps, charts, posters, and diagrams were present a total of 59 times in institutions. They were present in 39 curriculum laboratories. Diversity of location occurred, because all were found "elsewhere on campus", the location not indicated. Eighteen responses showed that macromaterials were not present.

Other macromaterials reported were pictures, portraits, study prints, and models.

Realia. 1. Specimens 2. Toys and games 3. Other (Table 5, page 51)

Specimens, toys and games were reported in 22 curriculum laboratories. They were not found in any libraries. They were located elsewhere on campus three times. Eleven times they were not present.

Other realia included "numerous learning devices for pre-school and primary education", and Cuisenaire Sets, which were located in a curriculum laboratory.

TABLE 4

LOCATION OF MACROMATERIAL

QUESTIONNAIRE RESPONSE NUMBER	MAPS	CHARTS	POSTERS	DIAGRAMS
1	L	C&L	C&L	C&L
2		C		
3	E	E	C	C
4	C	C	C	C
5	C	C	C	C
6	C	C	C	C
7	E	E	L	L
8				
9	E	E	E	E
10	C&L	C	C	C
11	L	C	C	C
12	C	C	C	
13	L	C	C	C
14				
15	C&L	C	C	C&L
16	Ed.D&L	L	C	
17	C&L	C	C	
18				

Code of Locations

C=Curriculum Laboratory
E-Elsewhere on Campus
Ed.D=Education Department
L=Library

Note: A blank space denotes that either a response was not given or a zero was expressed.

TABLE 5

LOCATION OF REALIA

QUESTIONNAIRE RESPONSE NUMBER	SPECIMENS	TOYS AND GAMES
1	C	C
2		C
3	C&E	C
4	C	C
5	C	C
6	C&E	C
7		
8		
9	E	C
10	C	C
11	C	C
12	C	C
13		
14		C
15	C	C
16		
17		C
18		

Code of Locations
C=Curriculum Laboratory
E=Elsewhere on Campus

Note: A blank space denotes that either a response was not given or a zero was expressed.

Audio-visual Material. 1. Motion picture films 2. Microforms 3. Records, tapes, cassettes 4. Filmstrips 5. Other (Table 6, page 53)

Microforms were located in many more libraries than curriculum laboratories, whereas records, tapes, and cassettes were found in more curriculum laboratories than libraries. Filmstrips were about equally divided between the two facilities. This was true, also, of motion picture films, but they were more apt to be found elsewhere on campus or not represented.

Other audio-visual materials reported were transparencies and slides.

Audio-visual Equipment. 1. Motion picture projector 2. Microforms readers 3. Listening devices 4. Filmstrip viewers 5. Other (Table 7, page 54)

Microforms readers were located most frequently in libraries. More listening devices, also, were found in libraries than in curriculum laboratories, which was surprising to this writer, since more libraries had the equipment than records, tapes, and cassettes. More motion picture projectors were located elsewhere on campus than in curriculum laboratories and libraries, where they were about equally reported. Filmstrip viewers were in about as many curriculum laboratories as libraries.

Other audio-visual equipment reported included video tape, opaque, and overhead projectors; video tape recorder; telebeam; cameras; tape recorders; copier; reading diagnostic equipment, and film loop viewers.

TABLE 6

LOCATION OF AUDIO-VISUAL MATERIAL

QUESTIONNAIRE RESPONSE NUMBER	MOTION PICTURE FILMS	MICROFORMS	RECORDS TAPES CASSETTES	FILMSTRIPS
1	E	L	L	L
2	E	L	C&L	C&L
3	E	E	E	E
4	C	C	C	C
5	L	L	C&L	C&L
6	E	E	C&E	C&E
7	L	L	L	L
8	E	L	C&L	L
9	E	E	C&E	C
10	E	L	C	C
11	L	L	C	C
12		C&L	C	C
13			L	L
14				
15		L	L	L
16		L	Ed.D&L	Ed.D
17	C	C&L	C	C
18				L

Code of Locations

C=Curriculum Laboratory
E=Elsewhere on Campus
Ed.D=Education Department
L=Library

Note: A blank space denotes that either a response was not given or a zero was expressed.

TABLE 7

LOCATION OF AUDIO-VISUAL EQUIPMENT

QUESTIONNAIRE RESPONSE NUMBER	MOTION PICTURE PROJECTORS	MICROFORMS READERS	LISTENING DEVICES	FILMSTRIP VIEWERS
1	L	L	L	L
2	E	L	L	C&E
3	E	E	E	E
4	C	C	C	C
5	L	L	L	L
6	E	E		E
7	L	L	L	L
8	E	L	E	E
9	C&L	L	L	C
10	C	L	C	C
11	L	L	L	C
12	E	L	L	E
13	E	L	L	E
14		L	L	
15	E	L	L	L
16	Ed.D	L	Ed.D	Ed.D
17	C&E	C&L		C
18				

Code of Locations

C=Curriculum Laboratory
E=Elsewhere
Ed.D.=Education Department
L=Library

Note: A blank space denotes that either a response was not given or a zero was expressed.

Additional remarks were given in several responses about the collections. Two are quoted below:

"A.V. and physical objects are located in the Instructional Services Department, because there is adequate staff for instruction in its use, care of equipment, and dissemination. This department is excellent, hence, the decision to keep such materials there was based on the quality of service performed rather than a neat organizational chart. Similar reasoning was used for the rationale to keep professional books in the library rather than the Curriculum Laboratory."

"Our facility is small and attempts to give a sampling of the various media available. We maintain a file of catalogs so students will know what is produced."

After determining what materials were held in the collections of curriculum laboratories, there followed questions concerning the use made of these materials, their selection, organization and classification.

Is material loaned? If so, to whom? For how long?

Fifteen curriculum laboratories loan material. Three curriculum laboratories do not. Those which do have varying times and conditions. Thirteen curriculum laboratories lend to faculty; fifteen lend to students; and of these, two mentioned student teachers and two stated students of education courses. One lends to local teachers and one to townspeople.

The length of the loan (with no conditions mentioned) was from 24 hours to two weeks. Condition of loan to faculty members ranged from the academic year to "indefinite". One curriculum laboratory was very specific about lending rules: audio-visual material was lent to students

for one week and juvenile literature for one month. In one curriculum laboratory, material was restricted to campus use only for teaching demonstration classes. One curriculum laboratory loaned books for two weeks, while periodicals and pamphlets were loaned for three days. Some curriculum laboratories were not definite about their lending regulations; their statements included: varies from one day to one week; depends from what area and for what purpose; varies with need; and, as needed.

Is there a separate budget for the purchase of material for the curriculum laboratory?

Eight curriculum laboratories have separate budgets, with two qualifying statements expressing that one budget is part of the library budget and the other takes care only of standing orders, because there was a "budget squeeze". Nine curriculum laboratories do not have a separate budget.

Who selects the material and equipment?

Selection of materials and equipment was done by the director with recommendations from the Education Department faculty in seven curriculum laboratories. In two instances, selection was done by the individual in charge of the curriculum laboratory without help being stipulated. Others included recommendations by students, Acquisition Librarian, and Audio-visual Supervisor. In four curriculum laboratories, it was reported the selection was done by the Education Department faculty. In one curriculum laboratory, the Curriculum Librarian used reviews as a guide to the selection of material and equipment.

What method of classification is used? a) Dewey Decimal b) Library of Congress C) Special system devised by the curriculum laboratory staff d) Other

Two curriculum laboratories used the Dewey Decimal System of classification. Six used the Library of Congress System with the explanation by three that this was for books only. Twelve used a special system devised by the curriculum laboratory staff, one of which was described as being by content location according to the discipline and another specified that the special classification was used for non-book material only. Other methods included a numerical system for films and the Superintendent of Document System on government documents, and two reported using the United States Office of Education textbook classification scheme.

Does the curriculum laboratory staff process all the material found there?

The staff in ten curriculum laboratories process all their material. The material is not processed in seven curriculum laboratories. The explanation was made by one that the material was processed in the Cataloging Department of the Library.

Is there space provided in the curriculum laboratory for the production of curriculum materials? Do the staff in the curriculum laboratory produce (or assist in the production of) curriculum materials?

There were examples of curricular material being produced in two of the three curriculum laboratories having space for such production. These included copy, transparencies, ditto masters, units in social

studies and mathematics, and materials for classes in special education. Video tapes were produced in the library of a college having no curriculum laboratory as such.

The two curriculum laboratories in which curriculum materials were produced were in state colleges. The library which produced curriculum aterial was private.

What method, if any, is used for weeding material?

The methods of weeding material from the curriculum laboratory were described as: primarily by age and standard bibliographies; by American Library Association standards; copyright date; periodic evaluation of material used; review by faculty; yearly inventory; annual weeding of catalog file with random weeding of other material; out-of-print texts are discarded, while pamphlets are weeded periodically; materials older than ten years are discarded; available space and date of materials decide what items are weeded; old pamphlets and catalogs are removed as new ones are filed; and out-of-date books are removed particularly when new editions supercede them. One curriculum laboratory distributed free material to students. Material has not been weeded from three curriculum laboratories, two of which explained that the material was too new.

Check all those who use the curriculum laboratory. a) Pre-service teachers b) In-service teachers c) Faculty members in your institution d) Students other than those in teacher education e) Other

Of the eighteen colleges and universities which reported, all said that pre-service teachers and faculty members used the curriculum laboratory, although one qualified the use as being by "a few".

Eleven curriculum laboratories stated that they had been used by students other than those in education, but one of these remarked that use was rarely made. Other users were faculty children.

Check all those activities performed by the staff of the curriculum laboratory. a) Finding material for patron b) Choosing material for patron c) Disseminating curriculum material

Sixteen responses said that the staff of the curriculum laboratory found material for patrons; eleven said that the staff helped to choose curriculum material for patrons; and ten said that curriculum material was disseminated by the curriculum laboratory.

Are group activities conducted in the curriculum laboratory?

Group activities were held in thirteen curriculum laboratories, and four reported they were not.

Do personnel in the curriculum laboratory participate in making school surveys?

There was a strong negative response concerning curriculum laboratory personnel participating in school surveys. Only one curriculum laboratory reported that it engaged in this activity.

Is new material displayed to bring it to the attention of patrons?

The curriculum laboratories were about evenly divided in the display of new material to bring it to the attention of patrons. New material was displayed in ten and was not in eight.

Is instruction given in the evaluation of curricular material?

Instruction was given in nine curriculum laboratories. In the other nine curriculum laboratories, such instruction was not given. One respondent explained that this was done in education courses.

Are demonstrations given of experimental aids in teaching?

Demonstrations were given in eleven curriculum laboratories with one statement that this was done by faculty members; seven did not.

In your opinion, would you say that the curriculum laboratory: a) Actively participates in curriculum revision b) Gives aid for others to make these revisions c) Makes available materials for others to make their own decisions

Two reported that the curriculum laboratory took an active part in curriculum revision, and thirteen said that it did not. Nine stated that assistance was given to others to make these revisions, and six said that it was not. Fourteen curriculum laboratories made materials available for others to make their own revision while one did not.

The opinion was generally held that the curriculum laboratory should not take an active part in curriculum revision. The opinion was about evenly divided between those who thought that the curriculum laboratory should give aid to others for making curriculum revisions. Fourteen responses stated they made materials available for others to make their own curricular revisions.

CHAPTER V

HISTORY OF THE CURRICULUM LABORATORY AT WILKES COLLEGE

A. EARLY PERIOD

The national development of the curriculum laboratory collections began with small numbers of curricular materials. This was true in the beginning of the curriculum laboratory at Wilkes College. First, there were gifts from publishers of an encyclopedia, The Book of Knowledge, and sample textbooks. These gifts were kept in the administrative office of the Chairman of the Education Department and the offices of other faculty members of that department.

Concurrently with the gifts from publishers were two organized collections which became part of the holdings of Wilkes College. One of these was a collection of science and mathematics instructional material. These materials were obtained by the directors of the Science and Mathematics Improvement Program. The other collection was obtained from the National Science Foundation in Washington, D.C. These collections were housed separately in the areas where special college courses were given in the disciplines covered by the material.

B. MIDDLE PERIOD

The middle period of development of the curriculum laboratory at Wilkes College began with the merging of the three collections in 1969. These became one basic collection to which were added further gifts from publishers and faculty members.

With material at hand which could be used for curriculum revision and development, there followed the development of characteristics of a curriculum laboratory. Separate housing was provided for the

incorporated collection in a series of buildings on campus. Movement from one building to another was necessitated by construction of new buildings in the growth of Wilkes College. The next to last move was to the Eugene Shedden Farley Library in 1970. It was at this time that the name "Curriculum Laboratory" was given to the facility.

At this time, also, there developed characteristics of service made possible by personnel assigned to the Curriculum Laboratory. A Professor of Education became the Director. For several years, he directed the facility alone; and his only helpers were student assistants. Since the Director had a full schedule of teaching, the hours devoted to the Curriculum Laboratory were few. Nevertheless, the facility was kept open forty to forty-five hours a week. Student assistants, trained by the Director, were always in attendance. In 1973, an Instructor became an Assistant Director of the Curriculum Laboratory.

The collection was organized by subject and grade level. Orientation to the use of the Curriculum Laboratory was provided by the Director and Assistant Director. Help was given to users to find and evaluate curricular material. Users were encouraged to make curriculum revisions and development. Weeding of out-of-date material was proposed upon the receipt of new replacements, but no weeding has been done.

A limited number of audio-visual materials and equipment were added to the collection. These were used by student teachers both in their college classes and their student teaching assigned classes.

Two hindrances in the development of the Curriculum Laboratory were evident. One was the lack of space in the Curriculum Laboratory for the production of curriculum material. The other was that at no time was there a separate budget for the maintenance of the facility.

The Director of the Curriculum Laboratory has urged everyone to use the facility. So far the most frequent users have been student teachers. Students in education, prior to student teaching, have also been users. Teachers in service taking graduate courses in education have used the Curriculum Laboratory and have found that use valuable.

While being housed in the library, the Curriculum Laboratory was completely separated from the library in administration and maintenance. It was always under the direction of the Department of Education. It seemed a natural consequence that when space occupied by the Curriculum Laboratory in the library was needed for growth of the library, the Curriculum Laboratory was moved to the building housing the Department of Education. There, at present, it occupies a room.

C. LATEST PERIOD

It is doubtful if the Curriculum Laboratory at Wilkes College will enter a "Latest Period" comparable to the national scene of curriculum laboratories. There is an idea being explored to eliminate the Curriculum Laboratory at Wilkes College and to depend entirely on a local Instructional Materials Examination Center, located in the Luzerne Intermediate Unit 18, Kingston, Pennsylvania, for all of the services that the Curriculum Laboratory can offer.

In a paper presented at the Annual Meeting of the American Library Association in July, 1974, there was stated: "It seems very desirable that local or regional educational media selection centers, forming part of the National Laboratory System, be located in colleges with teacher education components building on and expanding existing curriculum laboratories with their more limited purpose and of course with

financial assistance." (Gallinger, 1974, p. 5) Relationship in this statement concerns cooperation, but it does not advocate the elimination of a curriculum laboratory in order that it be replaced by an instructional media selection examination center.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

Information from the literature of curriculum laboratories in all parts of the United States, and the survey of certain curriculum laboratories in Pennsylvania, reveal that interest in the facility exists although the degree of interest varies.

There are curriculum laboratories which are well organized and maintained leading to effectiveness in teacher training courses. Others are inactive storage places. Laboratories may be active facilities offering services of help in curriculum revision and development. They may also be places where valuable information is kept to be used by those who are fortunate enough to find it.

There are several facets in which curriculum laboratories have shown growth. Over the years, their numbers have multiplied, characteristics have become definite, and the need for them has been shown in the requirement of such a facility for accreditation by the National Association of State Directors of Teacher Education and Certification.

Recommendations

The following recommendations are suggested for the Curriculum Laboratory at Wilkes College.

1. Wilkes College should continue developing a curriculum laboratory:
   - A. To enrich the teacher-training course.
   - B. To satisfy the requisite demands of the National Association of State Directors of Teacher Education and Certification.
   - C. To cooperate with, rather than be replaced by, the Instructional Materials Examination Center in the Luzerne Intermediate Unit 18, Kingston, Pennsylvania.

2. The name of the facility should remain "Curriculum Laboratory," because it denotes activity beyond being just a repository of curriculum materials.

3. The person in charge should:

   A. Be a professional member of the Department of Education.

   B. Have training and experience in classroom teaching - with training also in library science, a commendable asset.

   C. Be in attendance in the Laboratory for a period of twenty-five to forty hours a week.

   D. Be recompensed on a scale equal to that of teaching faculty members of the Department of Education having similar qualifications.

4. At least one clerical worker, employee, or student assistant should be in attendance the entire time the Curriculum Laboratory is open.

5. The facility should be open at least forty hours a week.

6. The location should be near the Department of Education to give users the advantage of professional help from faculty members of that department.

7. The Curriculum Laboratory should have close cooperation with:

   A. The library of the college for professional reference material, books, periodicals, and audio-visual materials and equipment.

   B. Curriculum laboratories in other nearby colleges.

   C. Public libraries.

8. There should be developed and maintained a collection of non-serial print material, to include examples of trade books for children; samples of children's magazines; macromaterials and realia such as can be used in teaching; examples of audio-visual material, which may be used to introduce educators to their use in practical classroom situations; and equipment for the use of audio-visual materials held.

9. A classification system should be used to facilitate:
    A. Location of material.
    B. Easy identification of material according to:
        1. Subject
        2. Grade
        3. Medium
        4. Practical applicability
10. Loan policies should be developed to allow circulation of instructional materials through a controlled system which is fair to all borrowers.
11. Curriculum material should be produced:
    A. By pre- and in-service educators.
    B. With the cooperation of:
        1. Curriculum Laboratory staff.
        2. Members of the Department of Education.
        3. Audio-visual section of the college library.
12. Selection of material purchased should be made by the director and other faculty members of the Department of Education with recommendations from students in education courses.
13. Relations with book companies should be encouraged so as to receive material from them which will be helpful for display and use.
14. A policy of weeding outdated or otherwise unusable curriculum material should be instituted.
15. Knowledge of the existence of the Curriculum Laboratory should be disseminated collegewide for potential new users.
16. Orientation should be made by faculty members of the Department of Education.

17. Staff members should:

    A. Help patrons to find material.

    B. Give aid in the choice of material.

    C. Disseminate information:

        1. About materials at hand.

        2. Concerning the use of materials.

18. Evaluation of curriculum material should be shared with users by the Director and other faculty members of the Education Department.

19. Group activities, such as seminars and workshops, should be held.

20. An internship should be instituted on the graduate level to allow students to gain credit for assistance in the Curriculum Laboratory.

APPENDIX A

CURRICULUM LABORATORY QUESTIONNAIRE

1. Does your institution have a curriculum laboratory?

   Yes_____ No_____

2. If the name is different from curriculum laboratory, what is it?

   _____

3. If there is no curriculum laboratory, what area of the curriculum program performs the same function?_____

   _____

4. What is the academic rank and/or title of the person in charge of the curriculum laboratory?_____

   _____

5. How many hours a week is the curriculum laboratory open?_____

   _____

6. State the number of hours per week worked in the curriculum laboratory by the following personnel (during the regular college year):

   a) Professional_____ d) Student assistants_____

   b) Subprofessional_____ e) Other_____

   c) Clerk_____

7. What is the reasoning behind the choice of the number of people working in the curriculum laboratory?_____

   _____

   _____

   _____

   _____

8. For how many years have you had this facility?_____

9. The curriculum laboratory operates under the direction of:

(Check one) a) The education department_____

b) The library_____

c) A combination of the education department and the library_____

d) Other_____

10. In marking the following representative materials and equipment, use: C for those found in the curriculum laboratory; L for those found in the library; E for those found elsewhere on campus; and O if not represented. (Use two letters, if appropriate)

Non Serial Printed Material

1. Textbooks_____
2. Workbooks_____
3. Courses of study_____
4. Curriculum guides_____
5. Children's books_____
6. Adolescents' books_____
7. Teaching guides_____
8. Tests_____
9. Pamphlets_____
10. Other_____

Periodicals

1. Children's magazines_____
2. Professional periodicals_____
3. General periodicals_____
4. Other_____

10. (Continued)

Macromaterial

1. Maps_____

2. Charts_____

3. Posters_____

4. Diagrams_____

5. Other_____

Realia

1. Specimens_____

2. Toys and Games_____

3. Other_____

Audio-Visual Material

1. Motion picture films_____

2. Microforms_____

3. Records, tapes, cassettes_____

4. Filmstrips_____

5. Other_____

Audio-Visual Equipment

1. Motion picture projector_____

2. Microforms readers_____

3. Listening devices_____

4. Filmstrip viewers_____

5. Other_____

11. Is material loaned? Yes_____ No_____

If so, to whom?_____

for how long?_____

12. Is there a separate budget for the purchase of material for the curriculum laboratory? Yes_____ No_____

13. Who selects the material and equipment?_____

_____

_____

14. What method of classification is used? (Check one)

a) Dewey Decimal_____

b) Library of Congress_____

c) Special system devised by the curriculum laboratory staff_____

d) Other_____

15. Does the curriculum laboratory staff process all the material found there? Yes_____ No_____

16. Is there space provided in the curriculum laboratory for the production of curriculum materials? Yes_____ No_____

17. Do the staff in the curriculum laboratory produce (or assist in the production of) curriculum materials? Yes_____ No_____

If the answer is yes, give three examples:

1. _____

_____

2. _____

_____

3. _____

_____

18. What method, if any, is used for weeding material?

_____

_____

_____

19. Check all those who use the curriculum laboratory.

a) Pre-service teachers_____

b) In-service teachers_____

c) Faculty members in your institution_____

d) Students other than those in teacher education_____

e) Other_____

20. Check all those activities performed by the staff of the curriculum laboratory.

a) Finding material for patron_____

b) Choosing material for patron_____

c) Disseminating curricular material_____

21. Are group activities conducted in the curriculum laboratory?

Yes_____ No_____

22. Do the personnel in the curriculum laboratory participate in making school surveys? Yes_____ No_____

23. Is new material displayed to bring it to the attention of patrons? Yes_____ No_____

24. Is instruction given in the evaluation of curricular material?

Yes_____ No_____

25. Are demonstrations given of experimental aids in teaching?

Yes_____ No_____

26. In your opinion, would you say that the curriculum laboratory:

a) Actively participates in curriculum revision. Yes_____ No_____

b) Gives aid for others to make these revisions. Yes_____ No_____

c) Makes available materials for others to make their own revisions. Yes_____ No_____

27. If you would like a copy of the questionnaire reply tabulations, check here_____

28. Use the other side of this sheet for any remarks.

APPENDIX B

RESPONDING COLLEGES AND UNIVERSITIES

The following colleges and universities responded to the Curriculum Laboratory Questionnaire. They are listed in alphabetical order. One college is not listed, because the response could not be identified.

Allegheny College
Meadville, Pa. 16355

Bloomsburg State College
Bloomsburg, Pa. 17815

Bucknell University
Lewisburg, Pa. 17837

Capitol Campus
Pennsylvania State University
Middletown, Pa. 17057

Cheyney State College
Cheyney, Pa. 19319

Clarion State College
Clarion, Pa. 16214

East Stroudsburg State College
East Stroudsburg, Pa. 18301

Elizabethtown College
Elizabethtown, Pa. 17022

Geneva College
Beaver Falls, Pa. 15010

Kings College
Wilkes-Barre, Pa. 18702

Lock Haven State College
Lock Haven, Pa. 17745

Lycoming College
Williamsport, Pa. 17701

Mansfield State College
Mansfield, Pa. 16933

Marywood College
Scranton, Pa. 18509

Moravian College
Bethlehem, Pa. 18018

Point Park College
Pittsburgh, Pa. 15222

Thiel College
Greenville, Pa. 16125

University of Scranton
Scranton, Pa. 18510

Waynesburg College
Waynesburg, Pa. 15370

Westminster College
New Wilmington, Pa. 16142

Wilkes College
Wilkes-Barre, Pa. 18703

BIBLIOGRAPHY

Anderson, V. E. Principles and procedures of curriculum improvement. (2nd ed.) New York: Ronald Press, 1965.

Arnett, H. M. Accessibility of instructional materials with implications for the organization of curriculum laboratories. (Doctoral dissertation, Western Reserve University) Ann Arbor, Mich.: University Microfilms, 1965, No. 66-3020.

Bhattarai, M. D. Plan for the development of a curriculum laboratory for Nepal. (Doctoral dissertation, George Peabody College for Teachers) Ann Arbor, Mich.: University Microfilms, 1972, No. 72-25360.

Bomar, C. et al. Guide to the development of educational media selection centers. Chicago: American Library Association, 1973.

Brewton, J. E. The Peabody curriculum laboratory. National Association of Secondary School Principals, Bulletin, 1941, 25, 16-21.

Bristow, W. H. and Simon, L. Resource centers. Review of Educational Research, 1956, 26, 184-196.

Church, J. G. Administration of instructional materials organization. Belmont, California: Fearon Publishers, 1970.

Church, J. G. The development of criteria for evaluating curriculum laboratories in teacher education. (Doctoral dissertation, University of Utah) Ann Arbor, Mich.: University Microfilms, 1958, No. 24373.

The college blue book. (14th ed.)
v. 2, U.S. colleges: Tabular data; v. 4, Degrees offered by colleges and subject. New York: CCM Information, 1972.

Collier's encyclopedia. v. 9. New York: P.F. Collier and Son, 1959.

Dane, C. The school library as an instructional materials center. Peabody Journal of Education, 1963, 41, 81-86. Cited by Ellis, E. V. The role of the curriculum laboratory in the preparation of quality teachers. Tallahassee: Florida A & M University, 1969. ERIC, No. ED 031 457.

Drag, F. L. Curriculum laboratories in the United States: A research study - San Diego Schools. Education Monograph No. 15, San Diego, California: Curriculum Laboratory, Office of the Superintendent of Schools, September, 1947.

Ellis, E. V. The role of the curriculum laboratory in the preparation of quality teachers. Tallahassee: Florida A & M University, 1969. ERIC, No. ED 031 457. (Includes as the latter part of the publication: A manual of procedures for processing of book and non-book materials in curriculum centers. Separate pagination.)

Flandro, R. P. Curriculum laboratories in colleges of teacher education. (Doctoral dissertation, Indiana University) Ann Arbor, Mich.: University Microfilms, 1957, No. 24826.

Gallinger, Janice. Educational media selection centers and academic libraries. Paper presented at the Annual Meeting of the American Library Association (New York, July, 1974) ERIC No. ED 095 838

Good, C. V. Dictionary of education. (2nd ed.) New York: McGraw-Hill, 1959.

Gwynn, J. M. North Carolina builds a curriculum laboratory. Curriculum Journal, 1940, 11, 77-79.

Harap, H. The curriculum laboratory. New York State Education, 1932, 19, 634.

Harris, C. W., and Liba, M. R. Encyclopedia of educational research. (3rd ed.) New York: Macmillan, 1960.

Hawkins, G. S. Stonenenge decoded. New York: Dell Publishing, 1965.

James, M. L. The curriculum laboratory in teacher institutions: Its essential characteristics. (Doctoral dissertation, University of Connecticut) Ann Arbor, Mich.: University Microfilms, 1964, No. 64-3539.

Leary, B. E. (A) Curriculum laboratories and divisions. (Their organization and function in state departments of education, city school systems, and institutions of higher education.) United States Department of the Interior, Office of Education, Bulletin 1938, No. 7. Washington: Government Printing Office, 1938.

Leary, B. E. (B) Survey of curriculum laboratories. Curriculum Journal, 1938, 9, 350-354.

MacVean, D. S. A study of curriculum laboratories in midwestern teacher-training institutions. Dissertation Abstracts, 1958, 19, 1082-1083. (Abstract)

McGuinness, D. A. Developing learning resources in secondary schools. Cited in Pearson, N. P. and Butler, L. Instructional materials centers: Selected readings. Minneapolis: Burgess Publishing, 1969, 154-156.

The National Association of State Directors of Teacher Education and Certification. Standards for state approval of teacher education. (4th ed.) Salt Lake City: 1971.

The National Council for Accreditation of Teachers of Education. Standards for accreditation of teacher education. Washington: 1960.

Otto, H. J. and Floury, F. Printed materials. Review of Educational Research, 1956, 26, 115-124.

Russell, T. E. Selected implications for college and university curriculum laboratories in supporting public school curriculum development. (Doctoral dissertation, University of Alabama) Ann Arbor, Mich.: University Microfilms, 1966, No. 67-1331.

St. Cyr, C. R. Present and potential uses of the University of Michigan Curriculum Materials Center. (Doctoral dissertation, University of Michigan) Ann Arbor, Mich.: University Microfilms, 1955, No. 12639.

Taylor, K. I. Instructional materials center. Cited in Pearson, N. P. and Butler, L. Instructional materials centers: Selected readings. Minneapolis: Burgess Publishing, 1969, 11-16.

Walker, R. Space and scholarship - New Chicago Teachers College-North. As cited in Pearson, N. P. and Butler, L. Instructional materials centers: Selected readings. Minneapolis: Burgess Publishing, 1969, 216-221.

Wyman, R. The instructional materials center: Whose empire? Cited in Pearson, N. P. and Butler, L. Instructional materials centers: Selected readings. Minneapolis: Burgess Publishing, 1969, 231-234

Zembrodt, Sister M. C. Plan for the development of a curriculum laboratory at St. Louis University based on teachers' needs. (Doctoral dissertation, St. Louis University) Ann Arbor, Mich.: University Microfilms, 1944, No. 768.